

ABSTRACT OF THE DISCLOSURE

A mobile internet protocol regional paging network  
10 includes a paging foreign agent for handling a  
regional registration of a mobile node visiting a paging  
5 area, which includes internet protocol subnetworks. In  
operation, the mobile node periodically can provide an  
idle mode request to the paging foreign agent to enter an  
idle mode so as to deactivate one or more components for  
energy-saving purposes and reduce active communication  
10 with the mobile internet protocol regional paging  
network. The invention provides a small and link-layer  
independent extension to Mobile Internet Protocol with  
Regional Registrations to support power-constrained  
operation in the mobile nodes and to reduce routing state  
15 information in the visited domain. The extension allows  
a Mobile Node to enter a power saving Idle Mode during  
which its location is known with the coarse accuracy  
defined by a Paging Area. The mobile node and the  
visited domain may optionally agree on time slots used  
20 for Agent Advertisements and paging. The mobile node 14  
may include a mobile phone, a pager, or any  
telecommunications device capable of wireless  
communicating, including communication over the internet.